Important Advances in Clinical Medicine

Epitomes of Progress — Chest Diseases

The Scientific Board of the California Medical Association presents the following inventory of items of progress in chest diseases. Each item, in the judgment of a panel of knowledgeable physicians, has recently become reasonably firmly established, both as to scientific fact and important clinical significance. The items are presented in simple epitome and an authoritative reference, both to the item itself and to the subject as a whole, is generally given for those who may be unfamiliar with a particular item. The purpose is to assist the busy practitioner, student, research worker or scholar to stay abreast of these items of progress in chest diseases which have recently achieved a substantial degree of authoritative acceptance, whether in his own field of special interest or another.

The items of progress listed below were selected by the Advisory Panel to the Section on Chest Diseases of the California Medical Association and the summaries were prepared under its direction.

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Newer Diagnostic Tests for Sarcoidosis

SARCOIDOSIS IS AN important disease entity found in all races and ethnic groups in the United States, but especially in blacks. This disease enters into the differential diagnosis of pulmonary hilar adenopathy, lung infiltrates or nodules and other systemic granulomatous problems. A diagnosis is supported primarily by biopsy of lymph nodes or lung tissue showing noncaseating granulomata. Clinically, the disease frequently presents as bilateral hilar adenopathy on an x-ray study of the chest, with evidence of multiple organ involvement.

The Kveim test, when done with an acceptable batch of Kveim reagent (usually an extract of sarcoid spleen), is positive in approximately 80 percent of patients with active sarcoidosis, but the reagent may produce reactions in appreciable numbers of patients with certain other diseases including Crohn disease, ulcerative colitis, celiac disease and tuberculous lymphadenitis. The intradermal Kveim test usually requires biopsy of a papule that develops in the skin after one to four weeks for confirmation of positivity. More recently, *in vitro* Kveim tests have been investigated in which inhibition of leukocyte migration or enhancements of lymphocyte blast formation by a Kveim test suspension is evaluated. Unfortunately, the Kveim antigen test material is not generally available and has not been approved by the Food and Drug Administration for commercial distribution.

A simple blood test recently has been reported that shows promise of being useful for confirming a diagnosis of *active* sarcoidosis. The test involves the measurement of serum angiotensin-converting-enzyme (ACE). Serum ACE levels are elevated two- to three-fold in patients with active sarcoidosis, possibly because of synthesis and release of the enzyme by the epithelioid cells making up the sarcoid granulomata. The elevated levels return to normal when the disease becomes inactive or resolved or when therapeutic doses of corticosteroids are administered. Therefore, measurements of serum ACE may be useful both for confirming the diagnosis of active sarcoidosis and for evaluating the response to therapy.

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REFERENCES

Mitchell DN, Scadding JG: Sarcoidosis. Am Rev Respir Dis 110:774-802, Dec 1974

Lieberman J: Elevation of serum angiotensin-converting-enzyme (ACE) level in sarcoidosis. Am J Med 59:365-372, Sep 1975